

PROFESSIONAL



# JVC<sup>®</sup> CR-8250U

NEW TAPE HANDLER  
3/4" VIDEOCASSETTE EDITING  
RECORDER





# MEETING THE DEMANDS OF VIDEO PROFESSIONALS: A FEATURE-PACKED EDITING RECORDER

With 3/4" videocassettes used in production houses throughout the world, there is a pressing need for recorders that are able to make the precise edits required for professional results. Various sophisticated features have been added to the recognized reliability and dependability of our previous Tape Handler models.

## These improvements include:

- addition of a third audio (address) channel for time code
- balanced line audio inputs/outputs with XLR connectors
- vertical interval head switching
- video input level meter with manual adjustment
- tracking meter for precise playback adjustment
- H-phase control to prevent edit flagging
- full capstan control in all modes except load and eject
- standby mode to protect tape and machine components while allowing quick drum-up
- external hour meter
- increased dubbing flexibility through the use of FM-FM dubbing or COLOR DUB
- faster tape search (0 — X5, X15)
- real-time tape counter that reads at search speed, even through blank tape
- improved horizontal resolution

## SMPTE Address Channel

By connecting a time code generator, SMPTE time codes can be recorded on the tape allowing access to exactly the required frame for precise edits. When a time code signal is detected in recording or playback, an LED indicator lights.

## Balanced Line Audio Inputs/Outputs

XLR audio connectors, the type most commonly used on professional audio equipment, are provided for line inputs/outputs.

## Vertical Interval Head Switching

The head switching line, sometimes visible in the picture area, has been moved into the vertical interval — out of the picture completely.

## Full Metering

For demanding professionals, a video level meter and adjustment are provided to allow the video recording current to be optimized. A tracking meter is provided for precise playback adjustment. Independent audio level meters are provided for channels 1 & 2. The audio levels of the two channels can be adjusted referring to the meters, or automatically using the audio limiter. The limiter can be switched out on either or both audio channels as needs require. An external hour meter is also provided.

## H-Phase Control

This allows the CR-8250U to be accurately synchronized with the horizontal phase of the player for more accurate editing.



Direct-drive head drum



Independent supply and take-up reel motors



# THE OUTSTANDING FEATURES THAT MAKE THE CR-8250U A RELIABLE PERFORMER

- **Professional-quality editing** made possible by rotary erase head and blanking switcher
- **SMPTE time code capability** makes possible edits with single-frame accuracy
- **FM-FM dubbing system** for higher-quality copies
- **H-Phase control** for accurate synchronization with the player
- **Real-time tape counter** shows tape running time in minutes and seconds for convenience
- **Independent video level meter and control** for optimizing video recording current
- **Professional-standard connectors** — BNC for video and 3-pin balanced XLR for audio







## Based on a heavy-duty mechanism for assured reliability

### Direct-drive head drum and capstan servos for stable rec and play

The rotary head drum and heads which trace 85 micron tracks for the accurate recording and playback of the video signal are the most crucial parts of the video system. In the CR-8250U, the head drum is directly driven by a servo-controlled brushless DC motor. Together with the servo-controlled capstan which is also driven by an independent brushless DC motor, it assures highly stable pictures as well as greatly improved reliability.

### Reel servo system with independent motors

The stability of the tape transport mechanism is maintained by the independent motors driving the supply and take-up reels, and the servo system which keeps tape tension constant during fast forward and rewind, as well as recording and playback, so there is no overload on the tape at any speed.

### Aluminum diecast chassis supporting the heavy-duty mechanism

The advanced mechanisms used in the CR-8250U are supported by a rugged, durable aluminum

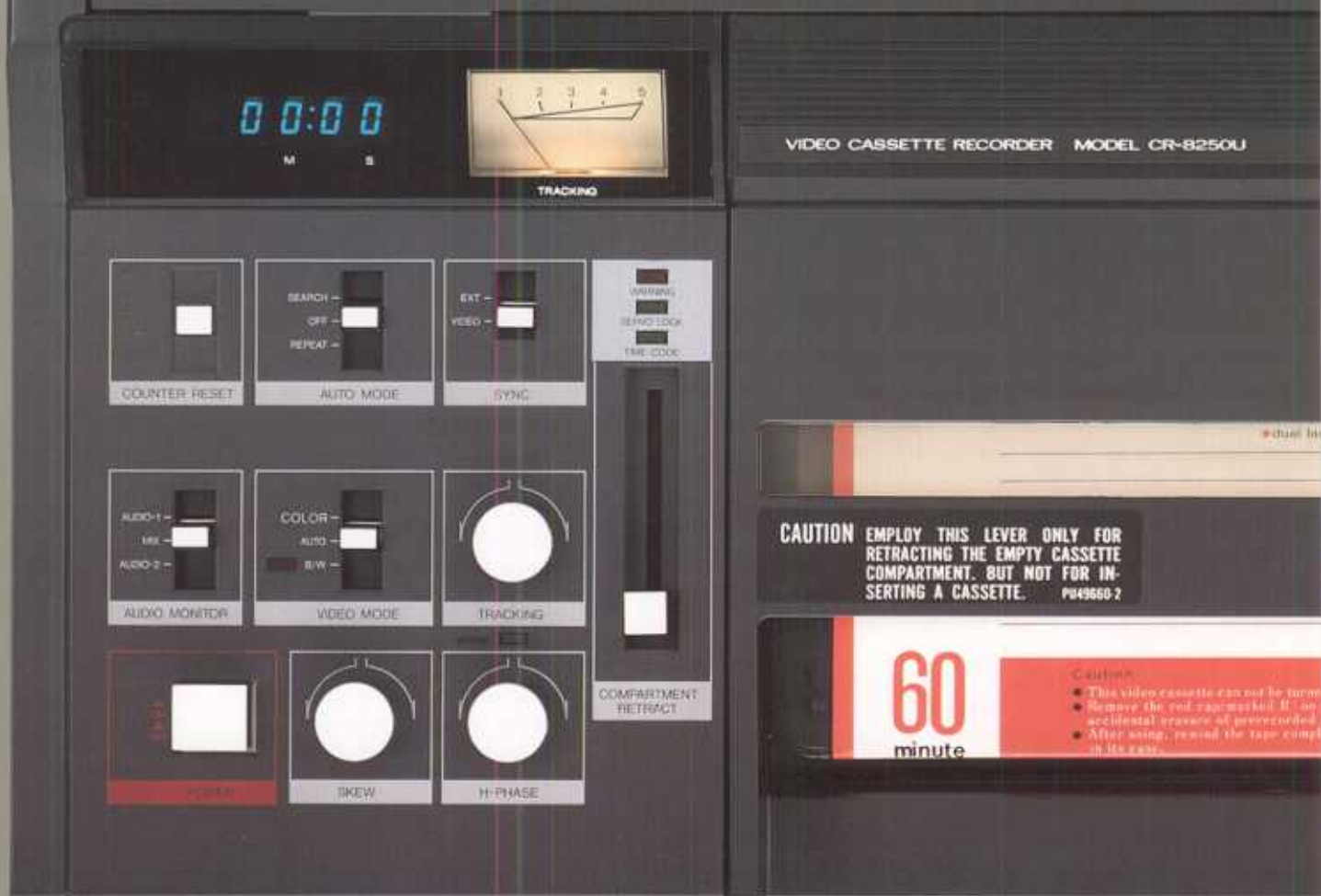
diecast chassis. A two-motor gear-driven tape loading mechanism and powered cassette eject mechanism are used to further assure reliability.

### Microprocessor-based logic control

The logic control system using a microprocessor allows direct changeover between modes without having to enter the stop mode. It is this facility that makes possible remote control over all the re-recorder's functions. Modes are clearly shown by the lighting of LED indicators corresponding to various controls which perform an intelligent tally function.

### Skeletal construction for ease of maintenance

To make the CR-8250U easier to service and maintain in optimum condition, its front and rear, top and bottom and side panels can be detached independently, giving easy access to all circuit boards. For easy maintenance, the circuit boards use plug-in connectors.



### Full Capstan Control with Standby Mode

The tape remains threaded in all modes except load and eject, permitting faster cuing times as well as better control. Tape search at 15 times normal speed is possible in both directions. Search speed is variable from 0 to 5 times, as well as possible at 15 times, when an edit controller is used. A special "standby" mode is provided which stops the capstan motor while the head drum rotates with the pinch roller engaged to allow instant engagement of the next mode. After about 2-1/2 minutes in this state, the tape is separated from the head drum to prevent damage, and the stop mode is engaged after an additional 1-1/2 minutes.

### Real-time electronic tape counter

The electronic tape counter has an easy-to-read fluorescent display that shows elapsed time up to 59 min 59 sec, facilitating indexing. It operates at search speeds, even while winding through blank tape.

### Professional-quality editing functions

The CR-8250U has a rotary erase head and a blanking switcher which make possible assemble and insert editing with virtually no distortion at the edit points. Editing flagging is minimized by use of framing servo and extremely stable horizontal phase lock.

### FM-FM dubbing system for high-quality copies

In the FM-FM dubbing system, the signals are transferred in the form of FM signals without modulation and demodulation; this greatly reduces the degradation of picture quality, making the CR-8250U

ideal for use as a master VCR in software production and in copying and editing systems.

### Color dubbing switch

When FM-FM dubbing is not suitable for your editing situation, the COLOR DUB switch, located on the rear, improves the color dubbing quality. This facility is especially convenient when editing using a time base corrector.

### Automatic pre-roll

When the pause button is pressed during recording or when the edit stop button is pressed during assemble-editing, the tape is automatically pre-rolled and stops after being rewound by about 2 seconds of program time.

### Capstan servo system with external lock function

This permits playback to be locked to external sync signals so that the CR-8250U can be used in any existing video system. The external subcarrier input terminal also enables connection of a time base corrector (TBC).

### Automatic search mechanism

This function operates together with the tape counter so that any section of the program can be located automatically.

### Automatic repeat mechanism

In the auto repeat mode, playback is continuous; when the tape reaches the end, it is automatically rewound and repeated.



## SPECIFICATIONS

### GENERAL

**Power requirement:** AC 120 V~, 50/60 Hz, 140 W

**Dimensions:** 56.4(W) x 22.1(H) x 47.1(D) cm  
(22-1/4" x 8-3/4" x 18-9/16")

**Weight:** 30.6 kg (67.3 lbs.)

**Operating temperature:** 5°C to 40°C  
(40°F to 104°F)

**Operating position:** Horizontal only

**Tape speed:** 9.53 cm/sec

**Recording time:** Max. 60 min. with JVC KCA-60

**Fast forward/Rewind time:** Within 4 min. 30 sec.  
for 60 min. tape

**Wow & flutter:** Less than 0.15 % RMS

### VIDEO

**Recording system:** Rotary two-head, helical  
scanning system

**Luminance:** FM recording

**Color signal:** Converted subcarrier direct recording

**Video signal system:** NTSC-type color, 525 lines

**Input Line/TV:** 0.5 – 2.0 Vp-p, 75 ohms

**FM dubbing:** 0.5 Vp-p, 75 ohms

**Output Line/TV:** 1.0 Vp-p, 75 ohms

**FM dubbing:** 0.5 Vp-p, 75 ohms

**Signal-to-Noise ratio:** More than 46 dB (color)  
More than 49 dB (B/W)  
(Rohde & Schwarz noise meter)

**Horizontal resolution:** Monochrome 340 lines  
Color 260 lines

**SC input:** 2.0 Vp-p, 75 ohms

**Sync input:** 0.5 to 4.0 Vp-p, 75 ohms

**Time Code input:** –10 dBs, more than 10 k ohms  
**output:** 2.2 Vp-p, low impedance

**Input select:** TV/LINE/FM DUB

**Video mode select:** COLOR/AUTO/B & W

**Sync select:** EXT/VIDEO (INT)

### AUDIO

**Input Line:** –20/0 dBs, 10 k ohms, balanced

**Mic.:** –70 dBm, 600 ohms, unbalanced

**TV:** –20 dBs, high impedance, unbalanced

**Output Line:** –20/0 dBm, 600 ohms load, low  
impedance, balanced

**Monitor:** 0 dBm, 600 ohms load, low impedance,  
balanced

**Headphone:** –28 dBs, 8 ohms load, unbalanced

**TV:** 0 dBs, 1 k ohm, unbalanced

**Signal-to-Noise ratio:** More than 48 dB  
(at 3 % distortion level)

**Frequency response:** 50 to 15000 Hz

**Input select:** TV/LINE/MIC

**Monitor output select:** CH-1/MIX/CH-2

### CONNECTORS

**Video input/output:** BNC connector

**FM dubbing input/output:** BNC connector

**Sync/SC input:** BNC connector

**Audio Line input/output:** XLR connector

**Mic.:** 6 mm jack

**Monitor out:** XLR connector

**Headphone:** 6 mm jack

**TV input/output:** EIAJ 8-pin TV connector

**Time Code input/output:** RCA connector

**AC in:** 3-pin AC connector

**Remote control:** 45-pin connector

**ACCESSORIES:** Monitor cable  
Power cord  
Dust cover

Rear panel of the CR-8250U



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